

KASILOF UNIT AGREEMENT

Findings and Decision of the Director,
Division of Oil and Gas

Under a Delegation of Authority
From The Commissioner of the State of Alaska,
Department of Natural Resources

October 25, 2002

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I. INTRODUCTION, BACKGROUND, AND CONCLUSION

Marathon Oil Company (Marathon) filed the Kasilof Unit application (Application) with the Division of Oil and Gas (Division), Department of Natural Resources (DNR) on behalf of itself as designated unit operator. The proposed Kasilof Unit is located in State waters nearly five miles south of Cape Kasilof, Cook Inlet. The proposed unit area covers approximately 13,289 acres within three State of Alaska oil and gas leases. Approval of the proposed Unit Agreement (Agreement) would conform and modify the lease contracts to be consistent with the Agreement.

Two of the leases in the proposed unit area were offered in State of Alaska Lease Sale 74W, held on November 14, 1995. DNR issued oil and gas leases ADL 384534 and ADL 384529, effective February 1, 1996, on State of Alaska lease form number DOG 9208. The seven-year primary lease term of these leases expires on January 31, 2003. The remaining lease in the proposed unit area was offered in State of Alaska Lease Sale Cook Inlet Areawide 2000, held on August 16, 2000. DNR issued ADL 389502, effective May 1, 2001, on State of Alaska lease form number DOG 200004. The seven-year primary lease term of ADL 389502, absent it being unitized, drilled or in production will expire April 30, 2008. All three leases retain a 12.5% royalty to the State of Alaska. Marathon owns 100% of the working interest in all three leases.

For reasons set out in this decision, the Division approves the formation of the Kasilof Unit, subject to the work program, bid deferment payments, changes in lease agreement terms, and automatic contraction provisions defined in this decision.

II. APPLICATION FOR THE FORMATION OF THE KASILOF UNIT

Marathon submitted the Application on July 19, 2002, and simultaneously paid the \$5,000.00 unit application filing fee, in accordance with 11 AAC 83.306 and 11 AAC 05.010 (a)(10)(D), respectively. The Application includes: the Kasilof Unit Agreement; Exhibit A legally describing the proposed unit area, its leases, and ownership interest; Exhibit B, a map of the proposed unit; and Exhibit G, the proposed Plan of Exploration (Initial POE or IPOE). The Application also includes the Kasilof Unit Operating Agreement and technical data in support of the Application. Because Marathon is the sole working interest owner in the proposed unit area, and royalty is owned by the State in full, 11 AAC 83.328, requiring the applicant to invite all proper parties to join the Agreement, does not apply. The Agreement is based on DNR's standard state unit agreement form (Revised June 2002) with no modifications. Two of the three leases will be severed upon unitization consistent with 11 AAC 83.373 (See Paragraph IV.C.11 below).

The Agreement requires the Unit Operator, Marathon, to file unit plans describing the activities planned for the proposed unit area. The Unit Operator must consider how it can best develop the resource underlying the entire unit area, without regard to internal lease boundaries. Marathon filed a proposed three-year Initial POE (IPOE). The IPOE is discussed further in Paragraph III.A.4 below.

The Agreement defines the relationship between the unit operator, the working interest owner, and the royalty owner. It describes the rights and responsibilities, in addition to those imposed by State law and the leases, of the unit operator, working interest owner and royalty owner for exploration of the unit area. It protects the interests of the State and the lessee. It defines Marathon's rights and responsibilities in the event of successful or unsuccessful exploration results. DNR may approve the Agreement if the available data suggests that the unit area covers one or more geologic formations that should be developed under a DNR approved plan, and the proposed unit meets the other statutory and regulatory criteria.

The Division determined that the Application was complete and published a public notice in the "*Anchorage Daily News*" and in the "*Peninsula Clarion*" on Sunday, July 28, 2002, under 11 AAC 83.311. DNR provided copies of the public notice to the Kenai Peninsula Borough (KPB), City of Kenai, Kenai City Council, Cook Inlet Region, Inc., Kenaitze Indian Tribe, Kenai Natives Association, Inc., Village of Salamatoff, Salamatoff Native Association, Ninilchik Traditional Council, Ninilchik Native Association, and to local post offices, libraries, radio stations, and other interested parties (Chambers of Commerce) under 11 AAC 83.311. DNR also provided public notice to the Alaska Department of Environmental Conservation (DEC), and the Alaska Department of Fish and Game (ADF&G). The public notice invited interested parties and members of the public to submit comments by August 27, 2002. The Division received no comments in response to the public notices.

III. DISCUSSION OF DECISION CRITERIA

AS 38.05.180(p) gives DNR the authority to form an oil and gas unit. The Commissioner of DNR (Commissioner) reviews unit applications under AS 38.05.180(p) and 11 AAC 83.301 – 11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003 that delegated this authority to the Director of the Division (Director).

The Director will approve the Agreement upon a written finding that it will: 1) promote the conservation of all natural resources; 2) promote the prevention of economic and physical waste; and 3) provide for the protection of all parties of interest, including the State. 11 AAC 83.303(a).

The Director will consider the following six criteria in making the written finding required in subsection (a): 1) the environmental costs and benefits of unitized exploration or development; 2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization; 3) prior exploration activities in the proposed unit area; 4) the applicant's plans for exploration or development of the unit area; 5) the economic costs and benefits to the State; and 6) any other relevant factors, including measures to mitigate impacts identified above, the Director determines necessary or advisable to protect the public interest. 11 AAC 83.303(b). A discussion of the subsection (b) criteria, as they apply to the Agreement, is set out directly below, followed by a discussion of the subsection (a) criteria.

A.) Decision Criteria considered under 11 AAC 83.303(b)

1. The Environmental Costs and Benefits of Unitized Exploration or Development

DNR considered environmental issues in the lease sale process, this unitization process, and will review them again during the unit plan of operations approval process. Unitized exploration, development, and production minimize surface impacts by consolidating facilities and reducing activity in the field. The IPOE requires at a minimum one exploratory well and either additional drilling or seismic data acquisition over the unit area within three years. The unit operator must obtain DNR's approval of a unit plan of operations and permits from various state and federal agencies before beginning operations, including exploratory wells, within the unit area. For example, State unitization regulations require the Commissioner's approval of a unit plan of operations before the unit operator performs any field operations. 11 AAC 83.346. A unit plan of operations provides a more detailed plan for surface activities incident to exploration of the unit area than does a POE.

When working interest owners begin the permitting process to commence any surface activities associated with a plan of exploration, it must submit a Coastal Project Questionnaire, permit applications, and supporting information to the Alaska Division of Governmental Coordination (DGC). Consistency with the Alaska Coastal Management Program (ACMP) is determined by the DGC, State resource agencies (DNR, DEC, ADF&G) and affected local governments (Kenai Peninsula Borough). The DGC conditions the proposed activity to ensure consistency with the ACMP and KPB Coastal District Plan (KPBCDP). Submittal of these documents to the State initiates an intensive public and agency review process. DGC organizes an inter-agency review, determines which permits are required, and publishes a public notice soliciting comments from federal, State and local agencies, and the public. DGC designates a 50-day review schedule starting with the public notice. State and federal agencies are asked to review the application, request any additional information and submit comments. After reviewing the comments, DGC may impose additional mitigation measures as necessary to ensure the project is consistent with the ACMP and KPBCDP. DGC then issues a Proposed Consistency Determination for public comment. After a public comment period, usually 30-days, additional stipulations may be imposed and a Final Consistency Determination may be issued for a project in the unit area.

When reviewing a proposed unit plan of operations, the Division considers the unit operator's ability to compensate the surface owner for damage sustained to the surface estate and plans for restoration and rehabilitation of the unit area. In addition, DNR, DEC, and AOGCC have bonding and financial responsibility requirements to ensure performance by the operator and reclamation of the area. 11 AAC 96.060; 18 AAC 75; 20 AAC 25.025.

Any exploration activity that may occur following unitization, unless categorically approved under the ACMP ABC (General Concurrence) list, is subject to an ACMP consistency determination, and must comply with both the State and KPBCDP. In addition to the State review process, all development activities must comply with all applicable local ordinances.

Some unit activity is proposed for private fee surface and subsurface owned land outside of the unit area; however, mitigation measures referenced below will be applied unit-wide.

The proposed Kasilof Unit area is habitat for a variety of marine mammals, waterfowl, and fish. Local residents and visitors use this area for recreational boating and fishing, subsistence hunting and fishing, as well as commercial salmon harvesting. Oil and gas activity in the proposed unit area may affect some wildlife habitat near drill sites, and some human activity may be disturbed temporarily during drilling and facilities construction. Following installation of a gas conditioning facility and pipeline connection to the proposed KPPL pipeline or existing line, exhaust, noise, vehicular traffic, bulk fuel storage and resulting disturbance would be less than un-unitized development. Mitigation measures including seasonal restrictions on specific activities reduce the impact on fish, wildlife, and human populations. Mitigation measures specifically address potential impacts to local access and use of the area (See Attachment 3).

Approval of the Kasilof Unit itself has no environmental impact. The unitization does not entail any environmental costs in addition to those that may occur when permits to conduct lease-by-lease exploration or development are issued. The commissioner's approval of the unit is an administrative action, which, by itself, does not convey any authority to conduct any operations on leases within the unit. Unitization does not waive or reduce the effectiveness of the mitigation measures that condition the lessee's right to conduct operations on the leases. DNR's approval of the IPOE is only one step in the process of obtaining permission to drill a well or wells or develop the potential reservoirs in the unit area. The Unit Operator must still obtain approval of a Plan of Operations from the state under 11 AAC 83.158 or 11 AAC 83.346, and permits from various agencies on state leases before drilling a well or wells or initiating development activities..

Unitized exploration, development, and production benefits the environment primarily through consolidation of facilities. The costs, such as increased air emissions, are far less when lease activity is unitized.

2. The Geological and Engineering Characteristics of the Reservoir

State regulation requires that a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or potential hydrocarbon accumulations. 11 AAC 83.356(a). DNR technical staff evaluated all data provided by the unit applicant to determine if the proposed unit area met those criteria. Marathon provided geological, geophysical and other technical data to delineate the reservoirs or accumulations. The technical data include a report on the history of oil and gas exploration in the application area; a Cook Inlet index map; a geological structure map of the application area; interpreted 2-D seismic sections; and other geological displays. The data are confidential and therefore are not discussed in detail here. Because the unit is in the exploration phase, there are no engineering data at this time.

Division staff evaluated the data provided by the unit operator, and otherwise available to them, and determined that the Kasilof Unit area encompasses all or part of one or more potential hydrocarbon accumulations, fulfilling the regulatory requirement in 11 AAC 83.356(a).

Cook Inlet areawide geology maps from the 1960s and 1970s identify the anticlinal trend that is the basis of the proposed Kasilof Unit, and the main structure in the proposed Kasilof Unit area is the Kasilof anticline. Beginning near the mouth of the Kasilof River the Kasilof anticline extends south for about 5 miles, closely paralleling the more landward Ninilchik anticline and the shoreline of the Kenai Peninsula. Additional structural features are present in the proposed unit area, on the same trend as the Kasilof anticline and in some cases perpendicular to the main trend, complicating the structure.

The Division cannot discuss the details of the confidential data, but the well and geophysical data provided with the Application, and otherwise available to DNR, indicate that the potential for hydrocarbons within the proposed unit area is sufficient to qualify for unitization, and unitized development and production of any underlying gas reservoirs is appropriate.

The Division's evaluation of the subsurface geology supports the configuration of the unit area as proposed. The operator has acknowledged that the unit area encompasses all or part of a potentially gas bearing reservoir in the Tyonek Formation. The initial well will be drilled to a depth sufficient to penetrate the Tyonek Formation. The Division's review of the geological information supports the inclusion of all or portions of the leases identified in the unit application within the proposed unit area.

3. Prior Exploration Activities in the Kasilof Unit Area

The proposed Kasilof Unit is located in Cook Inlet just offshore and south from the mouth of the Kasilof River. Marathon has justified the size of the Kasilof Unit based on the technical data and accompanying work plan that outlines how it plans to systematically explore, delineate, develop, and produce economic gas reserves, primarily within the Tyonek Formation.

The industry recognized the Kasilof anticline structure as a potential exploration target by the mid-1960s, and used surface mapping tools to key in on the location of major structures before mapping the subsurface with seismic, gravity, and magnetic tools and technology that were available at the time. In June of 1964, Union Oil Company (UNOCAL) drilled the UNOCAL Kasilof State 1 (KS 1) well, which was the first well drilled to test this part of the Ninilchik anticlinal trend (see Table 1). The primary exploration objective of KS 1 was oil in the Hemlock Formation, but gas in the younger intervals was a secondary target. UNOCAL initially drilled KS 1 to a total depth of 16,121 feet. The operator attempted one test in the Beluga Formation, which recovered water. UNOCAL plugged and abandoned the KS 1 as a dry hole.

Two months later, UNOCAL drilled the Kasilof State #2 well (KS 2) to a bottom-hole location less than one-half mile southeast of KS 1, to a total depth of 6,686 feet measured depth (MD). Three tests in the Beluga Formation recovered water before UNOCAL plugged and abandoned it as a dry hole.

The State approved UNOCAL's application to form the first Kasilof Unit, which encompassed most of the acreage included in the current application, in 1967.

Also in November, 1967, UNOCAL drilled the Kasilof Unit #1 well (KU 1) approximately two miles west of KU 1, to a total depth of 5,500 feet MD. Unocal performed three tests of the Sterling Formation, recovering mostly water, before plugging and abandoning it as a dry hole.

In November 1968 Mesa Petroleum drilled the Kasilof Unit #2 (KU 2) approximately 1 mile north of the KU 1, to a total depth of 8,000 feet MD. This well flowed 2.3 million cubic feet (MMCF) per day from 10 feet of Tyonek sandstone and recovered 2,700 feet of low salinity water from a test of the Sterling Formation.

In January 1975, SOCAL completed the Cape Kasilof #1 (CK 1) approximately 1 mile west of the KU 1, to a total depth of 14,015 feet MD. This well flowed gas in amounts too small to measure from two short, undiagnostic tests from intervals in the Beluga Formation.

Tyonek Formation gas accumulations are present in the Falls Creek and Ninilchik Units located south of the proposed Kasilof Unit, and in the Kenai Unit to the north. The Kenai Unit has been producing gas since 1961 and Marathon continues to successfully delineate, and bring on-line, new reserves in this nearby field. Marathon has also recently reported exploration and delineation success at the Ninilchik Unit, and based on that success, has plans to extend the transportation pipeline infrastructure south from the Kenai Unit through the Kasilof area to the Ninilchik Unit for the purpose of developing gas resources in the area.

Table 1. Wells drilled in and near the proposed Kasilof Unit area.					
Operator	Well Name & No.	Year Drilled	Status	Bottom Location	API Number
UNOCAL	Kasilof State #1	1964	P&A	29-T3N-R12W SM	501331000700
UNOCAL	Kasilof State #2	1964	P&A	29-T3N-R12W SM	501331000800
UNOCAL	Kasilof Unit #1	1967	P&A	30-T3N-R12W SM	507332004500
Mesa	Kasilof Unit #2	1968	P&A	19-T3N-R12W SM	507332014100
SOCAL	Cape Kasilof #1	1975	P&A	25-T3N-R12W SM	507332026300

Technology (primarily drilling technology, well log analysis, and seismic acquisition and processing) has evolved greatly since these early wells were drilled on the southern Kenai Peninsula. Marathon is using advanced technology in its Cook Inlet exploration. With new seismic data and improved well log analysis tools, Marathon believes it has a greater ability to identify and refine potential gas exploration prospects within the Tyonek and Beluga formations.

In the past few years, Marathon used new seismic and log analysis technology to re-examine the well data discussed above and seismic data acquired before 1980, to evaluate the potential for natural gas in the area. No new seismic has been collected in this area recently.

Based on the history of the area and the data presented by Marathon, the presence of hydrocarbons in the proposed unit area is prospective, but relatively unproven. This is especially true of the western half of the proposed Kasilof Unit. While Marathon justified the size of the Kasilof Unit based on the technical data and the Initial POE (IPOE), described below, exploration commitments will eventually be necessary to hold the tracts on the western unit area.

4. The Applicant's Plans for Exploration and Development of the Proposed Unit Area

The IPOE (Exhibit G to the Agreement) sets out a timely sequence of reservoir delineation activities that will facilitate the ultimate development of the reservoir(s). Completion of the proposed exploration activities as scheduled will satisfy the performance standards and diligence requirements that the State and Marathon have agreed to as a condition of approval of the Agreement. The Division and Marathon have agreed that failure to perform the entire proposed work scope set out in the IPOE is a default under the Agreement and can result in the automatic termination of the Kasilof Unit.

Marathon must begin drilling the first exploration well in the unit before the end of the first IPOE year. Alternatively, in the event Marathon elects to acquire 3D seismic data in lieu of drilling, any lands in ADL 384529 and ADL 384534 not within the aerial extent of the seismic program will automatically contract out of the Unit. In the latter case, Marathon then tenders a sum to the State for acreage contracted out of the Unit and withheld from the State's annual competitive leasing program. The DNR, in its sole discretion, determines any revised unit area. Failure to either drill a well or conduct a 3-D seismic program by the first anniversary of the Unit effective date will result in the automatic termination of the Kasilof Unit.

In the event the 3D seismic data is acquired within the first year of the IPOE, drilling of the initial exploration well will be commenced before the end of the second year and drilling of the second well must begin before the end of the third year. If Marathon chooses to drill in the first year, then a second well must be drilled before the end of the third year. Marathon must drill at least one well by the end of the second IPOE year.

If Marathon acquires the 3D seismic data in years one or two, any lands not within the aerial extent of such program will contract out of the unit by the end of the second year, and then Marathon will tender a sum to the State for lost bonus bids. No deferment charge will be required for shot acreage that proves to be non-prospective and is subsequently contracted out of the unit.

Failure to begin drilling the initial exploration well in the unit area by the end of the second year is a default of the IPOE and will result in the automatic termination of the Kasilof Unit. Failure

to drill two wells and shoot seismic over the unit area (or otherwise evaluate the entire unit area) by the end of the third year will result in automatic unit contraction. Any acreage not delineated by either seismic or drilling by the end of the third year will automatically contract out of the unit.

Marathon must propose in writing 90-days before the end of the third year, work that may include further unit exploration, delineation, or production activities, to be done in the fourth year. Should MOC decline to make a work commitment for the following year, either the unit will be terminated or the unit area will be contracted to the area defined by the then currently available information.

Marathon may propose at any time to accelerate the agreed-to work scope or propose a smaller Kasilof Unit with a simple 2-well work commitment that drills both of the two fault blocks in the prospect. It is the intent of DNR to contract out any acreage off structure by the end of the three years if it is still unexplored, regardless of work accomplished on the main prospect.

Marathon agreed to waive the extension provisions of 11 AAC 83.140 regarding any lands contracted or eliminated from the Kasilof Unit beyond their primary term. Marathon also agreed to waive the notice and hearing provisions for default under 11 AAC 83.374.

Completion of these exploration activities as scheduled will satisfy the performance standards and diligence requirements that the State and the working interest owner agreed to as a condition for approval of the Agreement. The IPOE with the agreed-to terms and conditions ensures that the lease extensions resulting from unitization under 11 AAC 83.336 continue only so long as the applicant proceeds diligently with exploration and development. The proposed IPOE advances exploration and evaluation of the prospect sooner than would occur under any individual lease exploration effort.

5. The Economic Costs and Benefits to the State

Approval of the Agreement in combination with the IPOE will result in both short-term and long-term economic benefits to the State. The assessment of the hydrocarbon potential of the leases will create jobs in the short-term. If the working interest owners make a commercial discovery, the State will earn royalty and tax revenues over the long-term life of the field.

The primary term of two leases in the proposed unit area will expire January 31, 2003, unless extended by unitization. If the lease expires, the leasehold interest will return to the State. The earliest that DNR could reoffer the land, under the current Five-Year Oil and Gas Lease Sale Schedule, is May 2003. If DNR leased the expired lands in the next available sale, the State could receive bonus payments and rentals for the primary term of the new leases. However, it could be years before the new lessees would propose exploration of the area and even longer before the State receives royalties and taxes on any commercial production.

Marathon agreed to compensate the State for extending the lease terms through unitization and foregoing the bonus bids and interest the State could have earned if the acreage was offered in

the Cook Inlet 2003, 2004 or 2005 Areawide lease sales. Imposing deferment charges protects the State from the loss of interest payments due to withholding the acreage from leasing.

If the working interest owners do not continue to explore and develop the unit area in accordance with the IPOE, the unit will terminate and the leasehold interests will return to the State. The potential long-term economic benefit of exploration and earlier development of the Kasilof Unit area outweighs the short-term loss of potential bonus payments. The State receives a 12.5% royalty share on all production from the unit area.

6. Other Relevant Factors Including Measures to Mitigate Impacts

There is a growing concern that the supply of natural gas in Cook Inlet is running out. Gas production from the Kasilof Unit would help replace depleting reserves to meet local demand in the coming years. Development and delivery of Kasilof Unit gas is in the best interests of local residents, the KPB, and all of Alaska.

DNR develops lease stipulations, or mitigation measures, through the lease sale process to mitigate potential adverse environmental and social impacts (See Attachment 3). Additional project-specific mitigation measures can be imposed when oil and gas lessees or the unit operator submit proposed plans of operation or development. AS 38.180(p); 11 AAC 83.341 – 11 AAC 83.346.

B.) Decision Criteria considered under 11 AAC 83.303(a)

1. The Conservation of All Natural Resources

Other natural resources that may be affected by development of the leases include marine waters, marine mammals, fish, land mammals, flora, fauna, the air, the soils, groundwater, streams and rivers of the Kenai Peninsula, and the mountains surrounding the entire Cook Inlet basin. As a balancing agency, DO&G believes that multiple use and enjoyment of all our natural resources can occur on State lands and that oil and gas can coexist with other uses. Mitigation measures are designed to protect environmental quality. Drilling a few high departure state-of-the-art gas wells from land to extract natural gas from beneath the seafloor should have little or no impact on the abundance and quality and value of other natural resources. The wells would be drilled much deeper than the deepest drinking water well into rocks that are saturated with gas, brine or saltwater. Well house and associated gas handling facilities will be unobtrusively located on private property and consolidated. Natural beauty will remain unaffected with the imposition of lease sale mitigation measures, existing laws and regulations, and prudent operator standards that recognize implied covenants in the lease. Residents will hear little if any noise from unit operations after well and pipeline installation. Without unitizing the leases, the field and surrounding area at Kasilof could see more gas wells, water wells, disposal sites, fuel storage

tanks, facilities, pipelines, utility lines, roads, traffic, emissions, and environmental risk than is necessary to develop, produce, and deliver the gas. While non-unitized development could bring additional benefits to the local economy in terms of jobs or increased demand for services, generally, lease-by-lease development would take away from surrounding natural resources and diminish their value to society.

Unitization of the leases overlying a reservoir conserves all natural resources, especially natural gas. With demand for Cook Inlet gas on the rise, every cubic foot is precious to Alaska and its economy. Kasilof Unit gas and gas condensates, if any, will be employed efficiently and only in volumes needed to meet demand of local consumers. It is burned as an energy source in efficient turbines to produce electricity for our communities and heat our homes, schools, and businesses. It may also be used to produce commodities including fertilizer, anhydrous ammonia, liquid natural gas, and high value fuels like diesel, jet fuel, or naphtha. Unitization will ensure that natural gas resources beneath the leases are used for the maximum benefit to Alaska.

The Agreement will promote the conservation of both surface and subsurface resources through unitized (rather than lease-by-lease) development. Unitization allows the unit operator to explore the area as if it were one lease. Without the Agreement the lessee would be compelled to seek permits to drill wells on each individual lease in order to extend the leases beyond their primary terms. Unitization reduces both the number of facilities required to develop reserves that may be discovered and the aerial extent of land required to accommodate those facilities. Review and approval of exploration and development permits under a unit agreement will also ensure that rational surface-use decisions are made without consideration of individual lease ownership or expense. After unitization, facilities can be designed and located to maximize recovery and to minimize environmental impact, without regard to lease ownership. Although the applicant has not determined the extent of any gas contained in the prospective reservoir, the Agreement will ensure that the acreage is explored and recovery from the leases is maximized if a commercial hydrocarbon accumulation is discovered.

2. The Prevention of Economic and Physical Waste

The unit will prevent economic and physical waste because the unit operator must have a plan to share future costs, a coordinated exploration plan, and if a commercial discovery is made, a comprehensive reservoir depletion model. A cost-sharing agreement promotes efficient development of common surface facilities and operating strategies. With a cost-sharing agreement, the working interest owner or potential future owners in the unit can rationally decide well spacing requirements, injection plans, and the proper joint-use of surface facilities. Unitization prevents economic and physical waste by eliminating redundant expenditures for a given level of production, and by avoiding loss of ultimate recovery with the adoption of a unified reservoir management plan.

Unitized operations improve development of reservoirs beneath leases that may have variable or unknown productivity. Marginally economic reserves, which otherwise would not be produced on a lease-by-lease basis, can be produced through unitized operations in combination with more productive leases. Facility consolidation lowers capital costs and promotes optimal reservoir management. Pressure maintenance and other field recovery procedures are easier to design and

achieve through joint, unitized efforts than would otherwise be possible. In combination, these factors allow less profitable areas of a reservoir to be developed and produced in the interest of all parties, including the State.

The total cost of exploring and developing the Kasilof Unit leases would be higher on a lease-by-lease basis than it would be under unitization terms. Drilling and facilities investment costs will be minimized as a consequence of eliminating a need for numerous sites within the unit area. Locations of individual wells and surface facilities will be selected to optimize ultimate oil and gas recovery, while minimizing or completely avoiding adverse impacts to the environment.

Without unitization, the unregulated development of reservoirs can become a race for possession by competing operators. This race can result in: 1) unnecessarily dense drilling, especially along property lines; 2) rapid dissipation of reservoir pressure; and 3) irregular advance of displaced fluids, all of which contribute to the loss of ultimate recovery or economic waste. The proliferation of surface activity, duplication of production, gathering, and processing facilities, and haste to get oil to the surface also increase the potential for environmental damage. Lessee compliance with conservation orders and field pool rules issued by the AOGCC would mitigate some of these impacts without an agreement to unitize operations. Still, unitization is the most efficient method for maximizing oil and gas recovery, while minimizing negative impacts on other resources. Formation of the unit will provide the State with a comprehensive plan for exploring and developing the entire unit area. Formation of the Kasilof Unit and implementation of the proposed IPOE will ensure that working interest owners prudently explore the acreage included in the unit, and produce gas-bearing intervals with optimum recovery.

Reducing costs and environmental impacts through unitized operations will expedite development of any reserves discovered and will promote greater ultimate recovery of any natural gas and gas condensate from the unit area. This will increase and extend the State's income stream from production taxes and royalties. The revenues to the lessees and unit operator may be reinvested in new exploration and development in the State. Unitization means reduced costs and increased benefits to all interested parties. It benefits the local and State economy, and provides revenues to the State's general, school, constitutional budget reserve, and permanent funds.

3. The Protection of All Parties in Interest, Including the State

Unitization serves to protect the economic interests of working interest owners as well as royalty owners. Combining interests, and operating under the terms of the Agreement and Kasilof Unit Operating Agreement, ensures each individual working interest owner an acceptable allocation of costs and revenues. Marathon, designated unit operator, holds 100% of the working interest in all three unit Tracts. Alaska retains 12.5% of the royalties from production sales and Marathon takes the remaining 87.5%. There are no other royalty owners or over-riding royalty interests in the unitized leases. Marathon agreed to use the DNR's standard state unit agreement form (Revised June 2002) and proposed no modifications. This form is continuously revised and improved by the Division keeping in mind the statutory charges of protecting correlative rights of all parties in interest. Under 11 AAC 83.328, all proper parties have been invited to join the Agreement. In this case, there are no other parties in interest in the unit area.

The Agreement in combination with the IPOE promotes the State's economic interests because exploration will occur earlier than without unitization. Diligent exploration under a single approved unit plan without the complications of competing operators is in the State's best interest. It advances evaluation of the State's petroleum resources, while minimizing impacts to the region's cultural and environmental resources. A commercial discovery will stimulate the State's economy with production-based revenue, a reliable energy supply, oil and gas related jobs, and service industry activity.

The Agreement provides for accurate reporting and record keeping, State approval of plans of exploration and development and operating procedures, royalty settlement, in-kind taking, and emergency storage of unitized substances, all of which will further the State's interest.

IV. FINDINGS AND DECISION

A.) The Conservation of All Natural Resources.

1. Unitization under the Agreement of the three leases that overlay a common reservoir will conserve all natural resources, including hydrocarbons, gravel, air quality marine and fresh water, wetlands, and other valuable habitat.
2. The unitized development and operation of the leases in this proposed unit will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. This reduction in environmental impacts and preservation of natural resources and their value is in the public interest.
3. If the exploration activities during the IPOE period result in the discovery of a commercially producible reservoir, then there may be environmental impacts associated with reservoir development. All unit development must proceed according to an approved plan of development. Additionally, before undertaking any specific operations, the unit operator must submit a unit plan of operations to the Division and apply for permits from other appropriate state and local agencies for review and approval. The lessees may not commence any drilling or development operations until all agencies have granted the required permits. DNR may condition its approval of a unit plan of operations and other permits on performance of mitigation measures in addition to those in the modified leases and the Agreement, if necessary or appropriate. Compliance with mitigation measures will minimize, reduce or completely avoid adverse environmental impacts.

B.) The Prevention of Economic and Physical Waste.

1. Marathon submitted geological data to the Division in support of the unit application. Division technical staff determined that the Kasilof Unit area encompasses all or part of one or more potential hydrocarbon accumulations. The available geological data justify including the proposed lands, described in Exhibit A, in the Kasilof Unit.
2. The IPOE provides for the reasonable exploration of potential hydrocarbon accumulations in the unit area. If the current or future working interest owners discover natural gas in commercial quantities, the Agreement will prevent the waste of gas, and increase the probability of recovering more hydrocarbons from the unit area. DNR must approve a plan of development before the unit operator produces any hydrocarbons in commercial quantities.
3. Unitization will result in financial savings to the working interest owner and subsequent royalty owners by consolidating facilities and optimizing wellbore placement. Fewer dollars will be spent recovering the same volumes of natural gas under unitization.

C.) The Protection of All Parties in Interest, Including the State.

1. The Agreement, conditioned upon the performance of its IPOE, adequately and equitably protects the public interest, and is in the State's best interest.
2. The Agreement meets the requirements of AS 38.05.180(p) and 11 AAC 83.303.
3. DNR complied with the public notice requirements of 11 AAC 83.311.
4. The Agreement will not diminish access to public and navigable waters beyond those limitations (if any) imposed by law or already contained in the oil and gas leases covered by this Agreement.
5. The Agreement provides for expansions and contractions of the unit area in the future, as warranted by data obtained by exploration or otherwise. The Agreement thereby protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners.
6. The applicant's IPOE meets the requirements of 11 AAC 83.303 and 11 AAC 83.341. The unit operator must conduct the proposed exploration activities in accordance with the timelines specified in the plan. The IPOE describes the performance standards and diligence requirements that the State requires. If the unit operator fails to perform any of the exploration activities outlined in the IPOE as scheduled, the plan will be in default and the unit will terminate.
7. In accordance with 11 AAC 83.341(d) the unit operator, Marathon, shall submit an annual report to the Division describing operations conducted under the IPOE

during the preceding year. This report shall be due annually on or before the unit effective date, October 26. The annual status report must describe the status of projects undertaken and the work completed during the first year of the IPOE, as well as any proposed changes to the plan.

8. The unit operator must submit a second Plan of Exploration or First Plan of Development to the Commissioner at least 60-days before the IPOE expires. Alternatively, the unit operator must request approval of the First Plan of Development, if appropriate, at least 90-days before the IPOE expires (11 AAC 83.341(b) and .343(c)).
9. The Kasilof Unit will expedite exploration and potential development of the unit area. With the formation of the Kasilof Unit, economic benefits to the State outweigh the economic costs of extending the primary term of the State leases committed to the unit.
10. Marathon agreed to waive the extension provisions of 11 AAC 83.140 regarding any lands contracted or eliminated from the Kasilof Unit beyond their primary term. Marathon also agreed to waive the notice and hearing provisions for default under 11 AAC 83.374.
11. Exhibit A to the Agreement provides the legal description of the Kasilof Unit area, and lists the leases committed to the Agreement. Commitment of a portion of a State of Alaska lease constitutes a severance of the unitized and non-unitized portions of the lease (11 AAC 83.373). Exhibit A describes the unitized portions of three leases: ADL 384534, ADL 384529, and ADL 389502. Marathon owns 100% of the working interest in all three leases. Marathon requested that only portions of ADL 389502 and ADL 384529 be committed to the Kasilof Unit and that ADL 384534 be committed to the unit in its entirety. The Division accepts Marathon's proposal, and this decision constitutes a severance of ADL 389502 and ADL 389529 into unitized and non-unitized acreage. Both ADL 384529 and 389502 are still within their primary terms and the Division will assign new lease numbers to the non-unitized acreage. Under 11 AAC 83.373, the non-unitized acreage will be treated as separate and distinct leases having the same effective dates and terms as the original leases and may be maintained thereafter only in accordance with the terms and conditions of the original leases, statutes, and regulations.

For the reasons discussed in this Findings and Decision, I hereby approve the Kasilof Unit Agreement subject to the conditions specified herein. The Agreement shall become effective as of 12:01 a.m. on the day following approval by the Director.

A person adversely affected by this decision may appeal this decision, in accordance with 11 AAC 02, to Pat Pourchot, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561. Any appeal must be received at the above

address, or by fax to 1-907-269-8918, within 30 calendar days after the date of "delivery" of this decision, as defined in 11 AAC 02.040. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

<signed>

Mark D. Myers, Director
Division of Oil and Gas

10/25/2002

Date

Attachments: 1. Exhibit A, Tract Description and Ownership Schedule
2. Exhibit B, Map of the Unit Boundary
3. Cook Inlet Areawide Lease Sale Mitigation Measures